

1 **CLAIMS**

2 We claim:

3
4 1. A method comprising:

5 presenting a free floating field in line with text in a document, the free
6 floating field presenting content derived from a source; and

7 upon modification of the source, automatically updating the content in the
8 free floating field.

9
10 2. The method of claim 1, wherein the document is written in a markup
11 language.

12
13 3. The method of claim 1, wherein the source is text and the free
14 floating field presents the text.

15
16 4. The method of claim 1, wherein the source is a data value and the
17 free floating field presents the data value.

18
19 5. The method of claim 1, wherein the source resides separate from the
20 free floating field and the free floating field presents content derived from
21 referencing the source.

22
23 6. The method of claim 1, further comprising:
24 presenting a table containing multiple cells in which one cell is the source;
25 and

upon modification of the cell, automatically updating the content in the free floating field.

7. The method of claim 1, wherein the free floating field is a first free floating field, the method further comprising:

presenting a second free floating field, the second free floating field presenting content derived from referencing the first free floating field; and

upon modification of the source, automatically updating the contents in the first and second free floating fields.

8. The method of claim 1, further comprising overlaying a formula edit box on the free floating field to facilitate user entry of a formula into the free floating field.

9. The method of claim 8, further comprising resizing the formula edit box as the user enters the formula.

10. The method of claim 8, further comprising extending the formula edit box horizontally and subsequently vertically as the user enters the formula.

11. The method of claim 1, further comprising:
creating a cell structure in association with the free floating field, the cell structure holding one of a formula or data used in the free floating field; and
creating a format structure in association with the free floating field, the format structure holding formatting information for the free floating field.

1
2 **12.** The method of claim 1, further comprising formatting the free
3 floating field independently of the text.

4
5 **13.** The method of claim 1, further comprising modifying a format of
6 the text and automatically applying the format modification to the free floating
7 field.

8
9 **14.** The method of claim 1, further comprising:
10 determining, upon selection of the free floating field, a type of content in
11 the free floating field; and
12 interpreting user entry based upon the type of content in the free floating
13 field.

14
15 **15.** The method of claim 14, wherein the determining comprises:
16 evaluating whether the type of content is a formula or non-text data;
17 if the type of content is a formula or non-text data, interpreting the user
18 entry as applicable to spreadsheet functions; and
19 if the type of content is not a formula or non-text data, interpreting the user
20 entry as applicable to word processing functions.

21
22 **16.** The method of claim 14, wherein the determining comprises:
23 evaluating whether the type of content is a formula;
24 if the type of content is a formula, highlighting all of the formula and
25 allowing editing in a formula edit box; and

1 if the type of content is not a formula, placing a cursor in the free floating
2 field.

3
4 17. A computer readable medium having computer-executable
5 instructions that, when executed on one or more processors, perform the method as
6 recited in claim 1.

7
8 18. A method comprising:
9 inserting a free floating field in text in a document;
10 enabling a user to enter a formula into the free floating field; and
11 automatically recalculating the formula in the free floating field.

12
13 19. The method of claim 18, wherein the enabling comprises overlaying
14 a formula edit box on the free floating field to facilitate user entry of the formula
15 into the free floating field.

16
17 20. The method of claim 19, further comprising resizing the formula
18 edit box as the user enters the formula.

19
20 21. The method of claim 19, further comprising extending the formula
21 edit box horizontally and subsequently vertically as the user enters the formula.

22. The method of claim 18, further comprising inserting a table that contains multiple cells, wherein the data value resides in one cell of the table so that upon modification of the data value in the cell, the formula in the free floating field is automatically recalculated.

23. The method of claim 18, wherein the free floating field is a first free floating field and the formula is a first formula, the method further comprising:

inserting a second free floating field;

enabling the user to enter a second formula into the second free floating field, the second formula referencing the first free floating field; and

upon modification of the data value, the first and second formulas in the first and second free floating fields are automatically recalculated.

24. The method of claim 18, further comprising:

creating a cell structure in association with the free floating field, the cell structure holding the formula; and

creating a format structure in association with the free floating field, the format structure holding formatting information for the free floating field.

25. A computer readable medium having computer-executable instructions that, when executed on one or more processors, perform the method as recited in claim 18.

26. A method comprising:

presenting a free floating field in line with text; and

1 overlaying a formula edit box on the free floating field to facilitate user
2 entry of a formula into the free floating field.

3
4 **27.** The method of claim 26, wherein the formula edit box initially
5 defaults to a size and shape of the free floating field.

6
7 **28.** The method of claim 26, further comprising resizing the formula
8 edit box as the user enters the formula.

9
10 **29.** The method of claim 26, further comprising extending the formula
11 edit box horizontally and subsequently enlarging the formula edit box vertically as
12 the user enters the formula.

13
14 **30.** The method of claim 26, further comprising:
15 presenting at least one table; and
16 enabling a user to reference a cell in the table to add a data value to the
17 formula.

18
19 **31.** A computer readable medium having computer-executable
20 instructions that, when executed on one or more processors, perform the method as
21 recited in claim 26.

22
23 **32.** A method comprising:
24 presenting a free floating field in line with text; and
25

1 presenting a table within the document, the table having a cell with
2 contents; and

3 enabling a user to reference the cell in the table when entering a formula in
4 the free floating field.

5
6 **33.** The method of claim 32, further comprising, upon modification of
7 the contents in the cell of the table, automatically recalculating the formula in the
8 free floating field.

9
10 **34.** The method of claim 32, further comprising nesting the free floating
11 field within a cell of the table.

12
13 **35.** The method of claim 32, further comprising nesting the table within
14 the free floating field.

15
16 **36.** The method of claim 32, wherein the formula also references a value
17 outside of the table.

18
19 **37.** A computer readable medium having computer-executable
20 instructions that, when executed on one or more processors, perform the method as
21 recited in claim 32.

22
23 **38.** A method comprising:
24 inserting one of a first free floating field or a spreadsheet table in text;
25

1 in response to user selection of at least a portion of the text or data,
2 automatically creating a second free floating field containing the portion of the
3 text; and

4 creating a reference in the first free floating field or spreadsheet table to the
5 second free floating field.
6

7 **39.** The method of claim 38, further comprising, upon confirmation,
8 displaying the portion of the text in place of the first free floating field.
9

10 **40.** The method of claim 38, further comprising, upon modification of
11 the text in the second free floating field, automatically updating the first free
12 floating field.
13

14 **41.** A computer readable medium having computer-executable
15 instructions that, when executed on one or more processors, perform the method as
16 recited in claim 38.
17

18 **42.** A method comprising:
19 presenting free floating field in line with text in a document;
20 creating a cell structure to hold one of data or a formula for the free floating
21 field;
22 creating a format structure to hold formatting information for the free
23 floating field;
24 receiving, into the free floating field, user entry of a reference to a source in
25 the document;

1 parsing the user input to update the cell structure and the format structure;
2 in an event the user input causes changes in the cell structure or format
3 structure, updating the cell structure or format structure to produce a new result;
4 and
5 presenting the free floating field with the new result.
6

7 **43.** A computer readable medium having computer-executable
8 instructions that, when executed on one or more processors, perform the method as
9 recited in claim 42.
10

11 **44.** A method comprising:
12 integrating text and a free floating field within a common document, the
13 free floating field supporting spreadsheet functionality;
14 enabling a user to select a control function to modify or evaluate an aspect
15 of the document; and
16 applying the control function across both the text and the free floating field.
17

18 **45.** The method of claim 44, wherein the control function is selected
19 from a group of functions including formatting, spell checking, grammar
20 checking, find, find and replace, auto-correct, applying document themes,
21 inserting lists, images, drawings, charts, hyperlinks, automatic detection of
22 hyperlinks, and automatic detection of lists.
23
24
25

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1 **46.** The method of claim 44, wherein the control function is any text
2 feature that can be applied to the text and the applying comprises applying that
3 text feature to the free floating field.

4
5 **47.** A method comprising:
6 presenting a free floating field in line with text; and
7 number formatting the free floating field independent of the text.

8
9 **48.** A user interface comprising:
10 a text entry area that permits entry of individual lines of text; and
11 a free floating field residing inline within a line of text, the free floating
12 field presenting content derived from source data or referencing source data such
13 that upon modification of the source data, the free floating field automatically re-
14 derives the content and presents the re-derived content.

15
16 **49.** The user interface of claim 48, wherein the content of the free
17 floating field is presented as text when not being edited.

18
19 **50.** The user interface of claim 48, wherein the free floating field
20 exhibits a change in appearance when selected for editing.

21
22 **51.** The user interface of claim 48, wherein the free floating field
23 contains a formula and the source is a data value.

1 **52.** The user interface of claim 48, wherein a formula edit box is
2 overlaid on the free floating field to facilitate user entry of a formula into the free
3 floating field.
4

5 **53.** The user interface of claim 52, wherein the formula edit box
6 dynamically resizes as the user enters the formula.
7

8 **54.** The user interface of claim 52, wherein the formula edit box extends
9 horizontally and subsequently enlarges vertically as the user enters the formula.
10

11 **55.** The user interface of claim 48, wherein the free floating field is a
12 first free floating field and further comprising a second free floating field inline
13 within text, the second free floating field presenting content derived from
14 referencing the first free floating field.
15

16 **56.** The user interface of claim 48, further comprising a table with
17 multiple cells, the table having a particular cell that presents content derived from
18 referencing the free floating field.
19

20 **57.** A user interface comprising:
21 at least one table residing within a document, the table having multiple
22 cells;
23 at least one free floating field inline with text in the document, the free
24 floating field containing a formula that references a cell in the table; and
25

1 the formula in the free floating field being automatically recalculated upon
2 modification of the cell in the table.

3
4 **58.** The user interface of claim 57, wherein the free floating field is a
5 first free floating field and further comprising a second free floating field
6 containing a reference to the first free floating field.

7
8 **59.** The user interface of claim 57, wherein the free floating field is
9 nested within a cell of the table.

10
11 **60.** The user interface of claim 57, wherein the table is nested within the
12 free floating field.

13
14 **61.** The user interface of claim 57, further comprising a formula edit
15 box overlaid on the free floating field to facilitate user entry of the formula.

16
17 **62.** The user interface of claim 57, further comprising multiple tables
18 and multiple free floating fields, at least one of the tables and free floating fields
19 containing a formula that references at least one other of the tables and free
20 floating fields.

21
22 **63.** An architecture comprising:
23 a user interface to present text and a free floating field inline with the text;
24 a free floating field component to receive data or a formula entered into the
25 free floating field; and

1 a spreadsheet functionality manager to manage spreadsheet functions for
2 the free floating field.

3
4 **64.** The architecture of claim 63, wherein the user interface overlays a
5 formula edit box on the free floating field to facilitate user entry of a formula.

6
7 **65.** The architecture of claim 63, wherein the spreadsheet functionality
8 manager comprises:

9 a cell structure to maintain the data or formula entered into the free floating
10 field; and

11 a format table to maintain formatting information used in the free floating
12 field.

13
14 **66.** The architecture of claim 63, wherein the free floating field receives
15 a formula, and the spreadsheet functionality manager comprises:

16 a first memory structure to hold source data;

17 a second memory structure to maintain the formula entered into the free
18 floating field, the formula referencing the data in the first memory structure; and

19 a recalculation engine to recalculate the formula in the second memory
20 structure following a change to the data in the first memory structure.

21
22 **67.** The architecture of claim 63, wherein the user interface presents at
23 least one table within the document, and the spreadsheet functionality manager is
24 configured to track references made between the free floating field and the table.
25

1 **68.** The architecture of claim 63, wherein the user interface presents at
2 least one table within the document, and the spreadsheet functionality manager is
3 configured to track references made between the free floating field and the table,
4 the spreadsheet functionality manager being further configured to update any data
5 and formulas in the table and free floating fields that are affected by a change
6 made to one of the table or the free floating field.

7
8 **69.** A computer comprising:
9 a memory;
10 a processing unit coupled to the memory; and
11 an architecture stored in the memory and executable on the processing unit
12 to construct and display a document having a free floating field inline with text,
13 the free floating field supporting spreadsheet functionality.

14
15 **70.** The computer of claim 69, wherein the free floating field contains a
16 formula that references source data, and upon modification of the source data, the
17 architecture automatically recalculates the formula in the free floating field.

18
19 **71.** The computer of claim 69, wherein the architecture constructs
20 multiple free floating fields within the document, at least one free floating field
21 containing a reference to contents in another free floating field.

1 **72.** The computer of claim 69, wherein the architecture constructs a
2 table within the document and the free floating field contains a reference to
3 contents in the table.
4

5 **73.** The computer of claim 69, wherein the architecture comprises:
6 a user interface manager to receive user input into the free floating field;
7 and
8 a spreadsheet functionality manager to manage the spreadsheet
9 functionality of the free floating field based on the user input received by the user
10 interface manager.
11

12 **74.** A computer readable medium having computer-executable
13 instructions that, when executed on one or more processors, performs the
14 following:

15 display a free floating field in line with text in a document;
16 create a reference, within the free floating field, to at least one source
17 elsewhere in the document; and
18 upon modification of the source, automatically update the free floating
19 field.
20

21 **75.** The computer readable medium of claim 74, wherein the source is
22 text and the free floating field references the text.
23
24
25

1 76. The computer readable medium of claim 74, wherein the source is a
2 data value and the free floating field contains a formula that references the data
3 value.

4
5 77. The computer readable medium of claim 74, wherein the free
6 floating field is a first free floating field, and further comprising computer-
7 executable instructions to:

8 display a second free floating field;

9 create a reference, within the second free floating field, to the first free
10 floating field; and

11 upon modification of the source, automatically update the first and second
12 free floating fields.

13
14 78. A computer readable medium having computer-executable
15 instructions that, when executed on one or more processors, performs the
16 following:

17 present a free floating field in line with text;

18 receive user-entered formula into the free floating field, the formula
19 referencing at least one data value elsewhere in the document; and

20 upon modification of the data value, automatically recalculate the formula
21 in the free floating field.

1 **79.** The computer readable medium of claim 78, further comprising
2 computer-executable instructions to overlay a formula edit box on the free floating
3 field to facilitate user entry of the formula into the free floating field.

4
5 **80.** The computer readable medium of claim 78, further comprising
6 computer-executable instructions to:

7 present a table; and

8 create a reference from the free floating field to a cell in the table.